REMARKS

The rejection of Claims 71-82 under 35 U.S.C. § 102(b) as anticipated by U.S. 4,552,691 (Shoji et al), is respectfully traversed.[1]

The present invention is drawn to particles prepared by a process comprising adding a solvent to undried metal or metal-compound particles which have been washed with water, thereby replacing the water by the solvent; and a conductive paste prepared from such particles. The solvent is compatible with an organic component and insoluble in water, and wets the particles.

In prior art manufacturing methods, as described in the specification herein, metal powder is first washed with water and is then dried. The conductive paste is then prepared by dispersing the dried metal powder into an organic vehicle and an organic solvent. It can thus be presumed that this is what one skilled in the art would understand is "a conventional manner," which is the term used by Shoji et al in their disclosure of how metal fine powders of their invention are obtained (column 2, lines 60-61). Shoji et al discloses an electrically conductive paste comprising metal fine powders of particular metals and a vehicle component such as terpineol, butylcarbitol, ethyl cellulose, etc., wherein the vehicle functions to uniformly disperse the metal fine powders, to have appropriate viscosity and surface tension on use and to smoothly diffuse on the substrate surface (column 3, lines 26-29). A surfactant may be added in order to improve compatibility with the metal powders and improve dispersibility (column 3, lines 34-36).

The Examiner, in response to previous arguments made by Applicants that they have shown significant improvement by using the present invention compared to the prior art, which used such metal particles in dried form, has found that the comparative data does not show what effect the presence of a surfactant has.

---

[1] It is not clear why the Examiner lists the rejection twice, with somewhat different explanations.

Applicants have previously replied that there is no reason to believe that the presence of the surfactant would cause Shoji et al's vehicle component to wet each of Shoji et al's metal fine powder particles to produce a particle having a structure as shown for Particles of Claim 71 or 74 in the Drawings for Reference, which was attached to the previous response. Rather, the metal powders and conductive paste would be expected to have a structure as shown for Shoji et al in said Drawings for Reference, given the suggestion in the examples of Shoji et al, wherein the metal powders, surfactant and vehicle are mixed together and then kneaded to obtain pastes.

In sum, Shoji et al neither discloses nor suggests adding a solvent to undried metal particles which have been washed with water, thereby replacing the water by the solvent, as required by the present claims.

For all the above reasons, it is respectfully requested that the rejection over Shoji et al be withdrawn.

The rejections of Claims 71-82 under 35 U.S.C. § 102(b) as anticipated by U.S. 4,766,027 (Burn), Claims 74-76, 79-80 and 82 also being alternatively rejected under 35 U.S.C. § 103(a) as obvious over Burn, are respectfully traversed.

The disclosures in Burn are similar to that in Shoji et al, *viz.*, conductive particles are dispersed in a solution of a binder and an organic solvent, with no detail about how the particles are made. It must thus be assumed that they are made in the above-discussed "conventional manner." Thus, the conductive particles and conductive paste of Burn would be expected to have a structure similar to that shown for Shoji et al in said Drawings for Reference. Particularly, in Burn, a copper-based conductor paste comprising a fine copper powder, a non-cellulosic binder, and a solvent for the non-cellulosic binder (column 3, lines 34-35), is made by dispersing finely divided particles of metallic copper in a solution of the binder and solvent, which is a non-solvent for the organic binder of adjacent green sheets

with which it is used (column 3, lines 47-51). A surfactant may be added to improve dispersion stability (column 5, line 39).

Burn is thus deficient for the same reasons that Shoji et al is deficient, as discussed above, which reasons are hereby incorporated by reference.

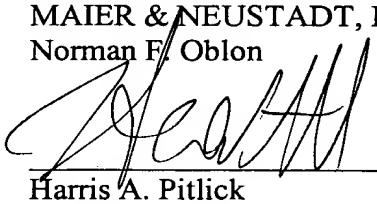
Accordingly, it is respectfully requested that the rejections over Burn be withdrawn.

Applicants respectfully traverse the finality of the Office Action. In response to the arguments made in the previous response, the Examiner simply states that the arguments "have been fully considered but not persuasive. The prior art of record continue to meet the present invention, thus the previous art rejections sustained." However, this response falls way short of the "completeness" requirements of 37 CFR 1.104(b). Without the Examiner's reasoning for dismissing their individual arguments, Applicants are deprived of the ability to address this reasoning, thus hindering advancing the prosecution. If the next Office Action is not a Notice of Allowance, then the Examiner is respectfully requested to withdraw the finality herein, and enter an Office Action that fully responds to Applicants' arguments.

All of the presently active claims are now believed to be in immediate condition for allowance. The Examiner is respectfully requested to rejoin non-elected claims of even scope, and in the absence of further grounds of rejection, pass this application to issue with all pending claims.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Harris A. Pitlick
Registration No. 38,779

Customer Number
22850
Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

NFO:HAP\la